Novel H1N1 Flu
Updated Key Points
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FluView Influenza Activity Update

- Influenza illness, including illness associated with the novel influenza A (H1N1) virus is ongoing in the United States.

- During week 21 (May 24 - 30, 2009), the May 29 *FluView* Report shows that influenza activity decreased in the United States overall; however, there are still higher levels of influenza-like illness than is normal for this time of year and novel H1N1 outbreaks are ongoing in parts of the United States, in some cases with intense activity.

- 31.1% of specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza.

    - This percentage is what is often seen at the peak of the influenza season and is very unusual for this time of year.

    - The increase in the percentage of specimens testing positive for influenza by WHO and NREVSS collaborating laboratories may be due in part to changes in testing practices by health care providers, triaging of specimens by public health laboratories, an increase in the numbers of specimens collected from outbreaks, and other factors.

- Novel H1N1 viruses now make up approximately 82% of all influenza viruses analyzed by the U.S. WHO/NREVSS collaborating laboratories.

- Overall the nationwide level of outpatient visits to providers for influenza-like-illness is below the national baseline.

- Three of the 10 surveillance regions reported an influenza-like illness percentage above their region specific baseline (Regions I, II and X).

    - Region I: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

    - Region II: New Jersey, New York, Puerto Rico, and the U.S. Virgin Islands.

    - Region X: Alaska, Idaho, Oregon, and Washington State.

- Increases in ILI in regions II and X likely represent increases in influenza activity in large cities in those regions, such as New York City

and Seattle/King County, which are experiencing community outbreaks of novel H1N1. The increase in ILI in region I cannot be explained by an increase in ILI in any one city, but appears to represent an overall increase in ILI in the states within that region.

- Influenza-like illness increased during week 21 in six of 10 regions compared to week 20.

- Despite the overall downward trend, localized outbreaks – in some cases with intense influenza-like activity – are ongoing in some places.

- Schools in some states continue to close as a result of novel H1N1 flu activity based on local considerations.

- Five states in the U.S. are reporting widespread influenza activity; nine states are reporting regional influenza activity; 14 states and the District of Columbia are reporting local influenza activity; 21 states are reporting sporadic activity; and one state did not report.

- The five states reporting widespread influenza activity are Arizona, Delaware, New Jersey, Pennsylvania and Virginia. (This is up from four states during week 20).

- It is very unusual for this time of year to still be having so many states reporting regional and widespread activity.

- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

- Five influenza-associated pediatric deaths were reported during Week 21.

    - Three of these deaths were associated with confirmed infections with novel influenza A (H1N1) viruses.

    - One was confirmed as seasonal influenza A (H1), and one was confirmed as influenza A virus of unknown subtype.

    - These deaths occurred between February 8, 2009 and May 26, 2009.

- Since September 28, 2008, CDC has received 67 reports of laboratory confirmed influenza-associated pediatric deaths that occurred during the 2008-09 influenza season. (More information on pediatric deaths is provided in a section below.)

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- It's uncertain at this time how severe this novel H1N1 outbreak will be over the next weeks in terms of how many people infected will have severe complications or death related to novel H1N1 infection.

- It is a good sign that nation-wide influenza-like-illness surveillance is trending downward.

- However, it is possible that localized outbreaks will continue to occur over the summer.

- The real uncertainty is the fall and how the novel H1N1 virus will affect the 2009-2010 influenza season in the United States.

- We are still learning about the severity and other epidemiological characteristics of the novel H1N1 virus.

- This information is important and will be taken into account when making recommendations with regard to vaccine and other preventive measures in the fall.

- So far, the largest number of novel H1N1 confirmed and probable cases (57% of cases) have been in people between the ages of 5 years and 24 years old.

- Pregnancy and other previously recognized medical conditions from seasonal influenza, like asthma and diabetes, appear to be associated with increased risk of complications from this novel H1N1 as well.

Pediatric Deaths

- Influenza-related deaths in children are tragic.

- Because of confidentiality issues, CDC does not discuss or give details on individual cases. (Additional questions may be referred to the departments of health for each state).

- The deaths in children reported this week are a somber reminder of the importance of protecting children from the flu.

- During the past 5 years that CDC has tracked deaths among children with influenza infections, the number of deaths reported to CDC each year has ranged from 46 to 153 deaths.

    - During the 2008-09 flu season, 67 influenza-related deaths in children have been reported to CDC since September 28, 2008.

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Three of these deaths were associated with confirmed infections with novel influenza A (H1N1) viruses

- During the 2007-08 flu season, 88 influenza-related deaths in children were reported to CDC.
- During the 2006-07 season, 78 influenza-related deaths in children* were reported to CDC.
- During the 2005-06 season, 46 deaths in children were reported to CDC
- During the 2004-05 season, 47 deaths in children were reported to CDC.
- During the 2003-04 season (the first year that CDC collected information on pediatric flu deaths), 153 flu-associated deaths in children were reported to CDC.

*Children are defined as people under the age of 18.

- It's possible that more flu-related deaths in children will be reported and will occur this year, and it's likely that these will result from novel H1N1 infection since seasonal influenza viruses are no longer widely circulating at this time and novel H1N1 viruses continue to circulate and cause illness in the U.S.

- CDC will continue to work with colleagues in state and local health departments to monitor all reported influenza-related deaths among children.

- Children at highest risk from seasonal flu complications include:

  - Children younger than 5 years old.

  - Children (of any age) with chronic medical conditions like asthma, diabetes or heart disease.

- CDC recommends a yearly seasonal flu vaccine as the first and most important step in protecting children against flu illness.

- However, at this time, a vaccine is not available against novel H1N1 flu. So, multiple strategies should be used at the same time to reduce, as much as possible, the risk of influenza and its complications, including:

  - Hand hygiene and cough etiquette (washing your hands often and covering coughs and sneezes).
  - Staying away from people who are sick.

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  - Also, it's important to stay home from work and/or school when you are sick to avoid spreading your illness to others.
    and,
  - The appropriate use of influenza antiviral medications.
  - CDC has issued interim guidance on the use of antiviral drugs for clinicians treating patients with novel influenza A (H1N1) virus infection and their close contacts.
  - This guidance is available at http://www.cdc.gov/h1n1flu/recommendations.htm

- Flu-related deaths in children less than 18 years old should be reported through a state health department to the Influenza Associated Pediatric Mortality Surveillance System. The number of flu-associated deaths among children will be updated each week and can be found at http://www.cdc.gov/flu/weekly.

MMWR – Update on Novel H1N1 Flu in Mexico

- On Thursday, June 4, 2009, the *Morbidity and Mortality Weekly Report* (MMWR) published an update entitled Novel Influenza A (H1N1) Virus Infection – Mexico, March-May, 2009

- This report updates a previous report on the outbreak in Mexico and summarizes public health actions taken to date by Mexico to monitor and control the outbreak.

- These public health actions consist of steps to enhance surveillance of influenza viruses and control measures designed to slow the spread of disease.

- Some epidemiologic features of the outbreak of this novel influenza virus strain in Mexico are consistent with that in the United States and other countries, including:

  - Person-to-person transmission during a period that is typically the low season for circulation of influenza viruses.

  - An age distribution of laboratory-confirmed cases that includes highest illness rates among children and adults in Mexico who are younger than 60 years of age.

  - Some deaths among previously healthy people

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    - Several patients have experienced an aggressive clinical course with severe pneumonia requiring ventilator support and progression to acute respiratory distress syndrome.

- Evidence to date suggests that the outbreak likely peaked nationally in Mexico in late April.

- Trends in case counts in Mexico suggest that novel influenza A (H1N1) activity is now decreasing, although localized transmission continues to occur

- The full report is available at http://www.cdc.gov/mmwr/

Vaccine

- We are aggressively taking early steps in the vaccine manufacturing process, working closely with manufacturing and the rest of the government.

- Vaccines are a very important part of a response to pandemic influenza.

- CDC isolated the new H1N1 virus, made a candidate vaccine virus, and has provided this virus to industry so they can begin scaling up for production of a vaccine, if necessary.

- There are many steps involved with producing a vaccine and we are committed to going forward with the NIH, and FDA, BARDA, and the manufacturers of influenza vaccines, to see about developing full scale vaccine production.

- Where possible, we are taking parallel steps to speed up the vaccine process.

- If things go well, and we develop a full scale production, it would be several months until the vaccine were available.

- So vaccine is an important tool for the future.

Seasonal Flu Vaccine

- Production of the seasonal flu vaccine for next season is nearly complete.

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- Seasonal flu is responsible for causing an estimated 36,000 flu-related deaths and 200,000 flu-related hospitalizations in the United States each year.

- Seasonal flu vaccine is always a public health priority.

- Based on serology data, CDC does not believe that seasonal influenza vaccine will provide any meaningful protection against novel influenza A (H1N1) virus.

- Vaccination with seasonal vaccine is still recommended to protect against the seasonal influenza viruses in the vaccine.

- More information on the serology data as it relates to seasonal vaccine is available in the May 22 issue of the MMWR in the article entitled "Cross-reactive Serum Antibody Response to the Novel Influenza A (H1N1) Virus After Vaccination with Seasonal Influenza Vaccine." This guidance is available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a1.htm